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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,787	10/10/2005	Shigemoto Hinata	MOR-262-A	4489
48980 7590 12/22/2006 YOUNG & BASILE, P.C. 3001 WEST BIG BEAVER ROAD SUITE 624 TROY, MI 48084			EXAMINER BRAHAN, THOMAS J	
			ART UNIT 3654	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/22/2006	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/22/2006.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/552,787	Applicant(s) HINATA, SHIGEMOTO	
	Examiner Thomas J. Brahan	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/21/6 1/6/6 10/10/5</u> . | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention.

Claims 5 and 7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5, adds a preliminary reference value and a limit reference value into the claimed combination of the invention. These are either redundant recitations of the reference values and limit reference values of claim 1, as to have the claim indefinite, or if they are additional reference and limit values, the claim is indefinite as incomplete as not specifying how these new values are correlated as to form an operative device. Claim 7 also adds a detected value that appears to be a redundant recitation.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucholz in view of Hoffmeyer et al. Bucholz shows the basic claimed crane safety device comprising at least four outriggers (four legs 11 and 12) in a frame (13), the safety device being characterized by comprising a load detector (A-D) that detects a ground reaction to each of the outriggers, and an alarm output section which calculates sums of detected values for ground reactions to every two adjacent outriggers to find a minimum value of the sums (see boxes 25 and 27-29 in figure 2), the alarm output section then comparing the minimum value obtained with a preset preliminary reference value and outputting a preliminary alarm signal when the minimum value is smaller than the preliminary reference value. It varies from the claims by not having a second alarm for a second value. Hoffmeyer et al shows a similar crane safety device which has first and second pre-established load limiting values for communicating first and second alarms to the operator, see the end of claim 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the safety device of Bucholz by establishing a two reference values as to have two warning signals communicated to the operator, for indicating an early approach of a tipping

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condition as well as a more dangerous near tipping condition, as taught by Hoffelmeyer et al. The use of the safety device, on a crawler crane, is not given any patentable weight in claim 1, as it is only stated as an intended use in the preamble of the claim.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucholz in view of Hoffelmeyer et al, as applied to claim 1, and further in view of JP 3-25495 (cited by applicant), Axakov et al or Karpa. Bucholz, as modified, shows the basic claimed crane safety device but varies from claim 2 by not showing the details of the load cell as to have it include a conical disk spring. However all load cells have spring biasing. JP '495 shows a load cell with conical disk spring (9). Axakov et al shows a load cell with conical disk spring (97). Karpa shows a load cell with conical disk spring (16). It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to use load cells with spring biasing on the crane of Bucholz, as to have them preloaded, as taught by JP '495, Axakov et al or Karpa.


Claims 3, 5 and 7, as understood, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucholz in view of Hoffelmeyer et al, as applied to claim 1, and further in view of Hayashi et al. Bucholz, as modified, shows the basic claimed crane safety device but varies from the claims by not having the boom and outriggers extendable. Hayashi et al shows a similar safety apparatus having an extendable boom and extendable outriggers with a boom length sensor (11) and outrigger length sensors (14) for a calculating and controlling unit (20). It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the crane of Buchholz by having the boom extendable, for increasing its reach, and the outriggers extendable, for adjustment, as taught by Hayashi et al.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Bucholz in view of Hoffelmeyer et al, as applied to claim 1, and further in view of Hayashi et al. Bucholz, as modified, shows the basic claimed crane safety device but varies from claim 6 by not having an on/off switch used by a crawler crane. Hayashi et al shows a similar safety apparatus and shows it used on a wheeled crane, see figure 15, as well as with a crawler crane with outriggers, see column 14, lines 18-30. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the safety device of Buchholz for use with a crawler crane, instead of a wheeled crane as these are art recognized equivalents, as taught by Hayashi et al. Providing the device with an off/on switch would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant.

An inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Brahan whose telephone number is (571) 272-6921. The examiner's supervisor, Ms. Katherine Matecki, can be reached at (571) 272-6951. The fax number for all patent applications is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR)

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system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions regarding access to the Private PAIR system, should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 12/19/06
Thomas J. Brahan
Primary Examiner
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